Missouri Department of Natural Resources

PUBLIC NOTICE

DRAFT MISSOURI STATE OPERATING PERMIT

DATE: August 25, 2006

In accordance with the state Clean Water Law, Chapter 644, RSMo, Clean Water Commission regulation 10 CSR 20-6.010, and the federal Clean Water Act, the applicants listed herein have applied for authorization to either discharge to waters of the state or to operate a no-discharge wastewater treatment facility. The proposed permits for these operations are consistent with applicable water quality standards, effluent standards and/or treatment requirements or suitable timetables to meet these requirements (see 10 CSR 20-7.015 and 7.031). All permits will be issued for a period of five years, unless noted otherwise in the Public Notice for that discharge.

On the basis of preliminary staff review and the application of applicable standards and regulations, the Missouri Department of Natural Resources (MDNR), as administrative agent for the Missouri Clean Water Commission, proposes to issue a permit(s) subject to certain effluent limitations, schedules, and special conditions. The proposed determinations are tentative pending public comment.

Persons wishing to comment on the proposed permit conditions are invited to submit them in writing to the Department of Natural Resources, Water Protection Program, P.O. Box 176, Jefferson City, Missouri 65102, ATTN: NPDES Permits and Engineering Section / Permit Comments. **Please include the permit number in all comment letters.**

Comments should be confined to the issues relating to the proposed action and permit(s) and the effect on water quality. The MDNR may not consider as relevant comments or objections to a permit based on issues outside the authority of the Clean Water Commission, (see Curdt v. Mo. Clean Water Commission, 586 S.W.2d 58 Mo. App. 1979).

All comments must be postmarked by September 25, 2006 or received in our office by 5:00 p.m. on September 28, 2006. The requirement of a signed document makes it impossible to accept email comments for consideration at this time. Comments will be considered in the formulation of all final determinations regarding the applications. If response to this notice indicates significant public interest, a public meeting or hearing may be held after due notice for the purpose of receiving public comment on the proposed permit or determination. Public hearings and/or issuance of the permit will be conducted or processed according to 10 CSR 20-6.020.

Copies of all draft permits and other information including copies of applicable regulations are available for inspection and copying at DNR's website, http://www.dnr.mo.gov/env/wpp/index.html, or at the Department of Natural Resources, Water Protection Program, P.O. Box 176, Jefferson City, Missouri 65102, between the hours of 8:00 a.m. and 5:00 p.m., Monday through Friday.

Public Notice Date: August 25, 2006
Permit Number: MO-0113328
St. Louis Regional Office

FACILITY NAME AND ADDRESS	NAME AND ADDRESS OF OWNER
Beelman River Terminal – St. Louis One North Market Street St. Louis, MO 63102	City of St. Louis City Hall, Room 212 Tucker Blvd. & Market Street St. Louis, MO 63103
RECEIVING STREAM & LEGAL DESCRIPTION	**TYPE OF DISCHARGE**
Mississippi River, Sec. 12, T45N, R7E, St. Louis County	industrial, reissuance

STATE OF MISSOURI

DEPARTMENT OF NATURAL RESOURCES

MISSOURI CLEAN WATER COMMISSION

MISSOURI STATE OPERATING PERMIT

In compliance with the Missouri Clean Water Law, (Chapter 644 R.S. Mo. as amended, hereinafter, the Law), and the Federal Water Pollution Control Act (Public Law 92-500, 92nd Congress) as amended,

Permit No.	MO-0113328
Owner:	City of St. Louis
Address:	City Hall, Room 212, Tucker Blvd. and Market Street, St. Louis, MO 63103
Continuing Authority:	Beelman River Terminal
Address:	One North Market Street, St. Louis, MO 63102
Facility Name:	Beelman River Terminal – St. Louis
Facility Address:	One North Market Street, St. Louis, MO 63102
Legal Description:	E ½, Sec. 12, T45N, R7E, St. Louis County
Latitude/Longitude:	#001 +3839185/-09011032 #003 +3838548/-09010548 #002 +3839072/-09011015 #004 +3839068/-09010588
Receiving Stream:	Mississippi River (P)
First Classified Stream and ID:	Mississippi River (P)(01707)
USGS Basin & Sub-watershed No.:	(07140101-070003)

is authorized to discharge from the facility described herein, in accordance with the effluent limitations and monitoring requirements as set forth herein:

FACILITY DESCRIPTION

Outfall #001 - #004 - SIC #4400
Stormwater runoff from river terminal.

Design flow:	Actual Flow:
Outfall #001 247,000 gallons per day.	Outfall #001 64,000 gallons per day.
Outfall #002 498,700 gallons per day.	Outfall #002 85,000 gallons per day.
Outfall #003 826,540 gallons per day.	Outfall #003 74,000 gallons per day.
Outfall #004 156,000 gallons per day.	Outfall #004 23,000 gallons per day.

This permit authorizes only wastewater discharges under the Missouri Clean Water Law and the National Pollutant Discharge Elimination System; it does not apply to other regulated areas. This permit may be appealed in accordance with Section 644.051.6 of the Law.

Effective Date

Doyle Childers, Director, Department of Natural Resources
Executive Secretary, Clean Water Commission

Expiration Date

Edward Galbraith Director of Staff, Clean Water Commission

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The final effluent limitations shall become effective upon issuance and remain in effect until expiration of the permit. Such discharges shall be controlled, limited and monitored by the permittee as specified below:

OUTFALL NUMBER AND EFFLUENT PARAMETER(S)	UNITS	FINAL EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
Outfall #001 - #004						
Flow	MGD	*		*	once/quarter	24 hr. estimate
Settleable Solids	mL/L/hr	1.5		1.0	once/quarter	grab
Sulfates	mg/L	*		*	once/quarter	grab
Chlorides	mg/L	*		*	once/quarter	grab
pH – Units	SU	**		**	once/quarter	grab
Zinc, Total Recoverable	ug/L	*		*	once/quarter	grab
Lead, Total Recoverable	ug/L	1432		714	once/quarter	grab
Chemical Oxygen Demand	mg/L	*		*	once/quarter	grab
Copper, Total Recoverable	ug/L	256		127	once/quarter	grab
Oil & Grease	mg/L	15		10	once/quarter	grab

MONITORING REPORTS SHALL BE SUBMITTED QUARTERLY; THE FIRST REPORT IS DUE 28, 2006. THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

B. STANDARD CONDITIONS

IN ADDITION TO SPECIFIED CONDITIONS STATED HEREIN, THIS PERMIT IS SUBJECT TO THE ATTACHED Part I STANDARD CONDITIONS DATED October 1, 1980, AND HEREBY INCORPORATED AS THOUGH FULLY SET FORTH HEREIN.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)

* Monitoring requirement only.

** pH is measured in pH units and is not to be averaged. The pH is limited to the range of 6.0-9.0 pH units.

C. SPECIAL CONDITIONS

1. This permit may be reopened and modified, or alternatively revoked and reissued, to:
   (a) Comply with any applicable effluent standard or limitation issued or approved under Sections 301(b)(2)(C) and (D), 304(b)(2), and 307(a) (2) of the Clean Water Act, if the effluent standard or limitation so issued or approved:
      (1) contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or
      (2) controls any pollutant not limited in the permit.
   (b) Incorporate new or modified effluent limitations or other conditions, if the result of a waste load allocation study, toxicity test or other information indicates changes are necessary to assure compliance with Missouri's Water Quality Standards.
   (c) Incorporate new or modified effluent limitations or other conditions if, as the result of a watershed analysis, a Total Maximum Daily Load (TMDL) limitation is developed for the receiving waters which are currently included in Missouri's list of waters of the state not fully achieving the state's water quality standards, also called the 303(d) list.

   The permit as modified or reissued under this paragraph shall also contain any other requirements of the Clean Water Act then applicable.

2. All outfalls must be clearly marked in the field.

3. Permittee will cease discharge by connection to areawide wastewater treatment system within 90 days of notice of its availability.

4. Changes in Discharges of Toxic Substances

   The permittee shall notify the Director as soon as it knows or has reason to believe:
   (a) That any activity has occurred or will occur which would result in the discharge of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels:"
      (1) One hundred micrograms per liter (100 µg/L);
      (2) Two hundred micrograms per liter (200 µg/L) for acrolein and acrylonitrile; five hundred micrograms per liter (500 µg/L) for 2,5 dinitrophenol and for 2-methyl-4, 6-dinitrophenol; and one milligram per liter (1 mg/L) for antimony;
      (3) Five (5) times the maximum concentration value reported for the pollutant in the permit application;
      (4) The level established in Part A of the permit by the Director.
   (b) That they have begun or expect to begin to use or manufacture as an intermediate or final product or byproduct any toxic pollutant, which was not reported in the permit application.

5. Report as no-discharge when a discharge does not occur during the report period.

C. SPECIAL CONDITIONS (continued)

6. General Criteria. The following water quality criteria shall be applicable to all waters of the state at all times including mixing zones. No water contaminant, by itself or in combination with other substances, shall prevent the waters of the state from meeting the following conditions:
   (a) Waters shall be free from substances in sufficient amounts to cause the formation of putrescent, unsightly or harmful bottom deposits or prevent full maintenance of beneficial uses;
   (b) Waters shall be free from oil, scum and floating debris in sufficient amounts to be unsightly or prevent full maintenance of beneficial uses;
   (c) Waters shall be free from substances in sufficient amounts to cause unsightly color or turbidity, offensive odor or prevent full maintenance of beneficial uses;
   (d) Waters shall be free from substances or conditions in sufficient amounts to result in toxicity to human, animal or aquatic life;
   (e) There shall be no significant human health hazard from incidental contact with the water;
   (f) There shall be no acute toxicity to livestock or wildlife watering;
   (g) Waters shall be free from physical, chemical or hydrologic changes that would impair the natural biological community;
   (h) Waters shall be free from used tires, car bodies, appliances, demolition debris, used vehicles or equipment and solid waste as defined in Missouri's Solid Waste Law, section 260.200, RSMo, except as the use of such materials is specifically permitted pursuant to section 260.200-260.247.

Missouri Department of Natural Resources
Water Protection Program
NPDES PERMITS AND ENGINEERING SECTION

Water Quality Review Sheet

Determination of Effluent Limits and Monitoring Requirements

Facility Information

FACILITY NAME: Beelman River Terminal – St. Louis NPDES #: MO-0113328

FACILITY TYPE/DESCRIPTION: River terminal, product storage

EDU*: Ozark MS tribs between MO and Ohio river 8- DIGIT HUC: 07140101 COUNTY: St. Louis

* - Ecological Drainage Unit

LEGAL DESCRIPTION: E ½ Sec 12, T45N R7E LATITUDE/LONGITUDE: +3839072/-09011015

WATER QUALITY HISTORY: No significant compliance issues. This is a stormwater flow into a large river

OUTFALL	DESIGN FLOW (CFS)	TREATMENT LEVEL	RECEIVING WATERBODY	DISTANCE TO CLASSIFIED SEGMENT (MI)
001	0.247	none	Mississippi River	Class P
002	0.498	none	Mississippi River	Class P
003	0.826	none	Mississippi River	Class P
004	0.156	none	Mississippi River	Cless P

Receiving Waterbody Information

WATERBODY NAME	CLASS	WBID	LOW-FLOW VALUES (CFS)			DESIGNATED USES**
			1Q10	7Q10	30Q10	
Mississippi River	P	01707		16,250		irr,lww,aql,btg,dws,ind, wbc

** Irrigation (IRR), Livestock & Wildlife Watering (LWW), Protection of Warm Water Aquatic Life and Human Health-Fish Consumption (AQL), Cool Water Fishery (CLF), Cold Water Fishery (CDF), Whole Body Contact Recreation (WBC), Secondary Contact Recreation (SCR), Drinking Water Supply (DWS), Industrial (IND)

COMMENTS:

Mixing Considerations

Mixing Zone (MZ):

Zone of Initial Dilution (ZID):

	Flow (cfs)	MZ (cfs)	ZID (cfs)
7Q10	16,250	4,062.5	406.25*
1Q10			
30Q10			

Applicable mixing zone regulation: 10 CSR 20-7.031 (4) (A) 4. B.

*ZID used in calculations is 10 times average design discharge flow=3.8 cfs

Permit Limits and Information

WASTELOAD ALLOCATION STUDY CONDUCTED (Y OR N): N

USE ATTAINABILITY ANALYSIS CONDUCTED (Y OR N): N

WHOLE BODY CONTACT USE RETAINED (Y OR N): N

OUTFALLS #001- #004

WET TEST (Y OR N): N FREQUENCY: _____ AEC: _____ METHOD: _____

PARAMETER	DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MONITORING FREQUENCY
FLOW	MONITOR		MONITOR	once/quarter
SETTLEABLE SOLIDS ML/L/HR	1.5		1.0	
CHEMICAL OXYGEN DEMAND MG/L	MONITOR		MONITOR	
PH (S.U.)	6-9		6-9	
SULFATES MG/L	MONITOR		MONITOR	
CHLORIDES MG/L	MONITOR		MONITOR	
OIL & GREASE MG/L ZINC UG/L LEAD UG/L COPPER UG/L	15 MONITOR 1432 256		10 MONITOR 714 127	

Receiving Water Monitoring Requirements

No receiving water monitoring requirements recommended at this time.

Derivation and Discussion of Limits

Wasteload allocations were calculated using water quality criteria or water quality model results and the dilution equation below:

$$C = \frac{(Cs \times Qs) + (Ce \times Qe)}{(Qe + Qs)}$$ (EPA/505/2-90-001, Section 4.5.5)

Where C = downstream concentration
Cs = upstream concentration
Qs = upstream flow
Ce = effluent concentration
Qe = effluent flow

Chronic wasteload allocations were determined using applicable chronic water quality criteria (CCC: criteria continuous concentration) and stream volume of flow at the edge of the mixing zone (MZ). Acute wasteload allocations were determined using applicable water quality criteria (CMC: criteria maximum concentration) and stream volume of flow at the edge of the zone of initial dilution (ZID).

Water quality based maximum daily and average monthly effluent limitations were calculated using methods and procedures outlined in USEPA's "Technical Support Document For Water Quality-based Toxics Control" (EPA/505/2-90-001).

Outfall #001 - #004

- Settleable Solids Limits have been retained from previous permit

- Oil and Grease Conventional pollutant, effluent limitation for protection of aquatic life; 10 mg/L monthly average, 15 mg/L daily maximum.

- pH pH shall be maintained in the range from six to nine (6 – 9) standard units [10 CSR 20-7.015 (8)(B)2.]

  Chemical Oxygen Demand Monitoring carried over from previous permit

Sulfate

Chronic WLA: C_e = ((0.38 + 4062.5)250 – (3.8 * 60.0))/ 0.38
C_e = 8905 mg/L

LTA_c = 8905 mg/L (0.527) = 2,858.5 mg/L [CV = 0.6, 99th Percentile, n = 4]

MDL = 2,858.5 mg/L * 3.11 = 8,889.5 mg/L [CV = 0.6, 99th Percentile]
AML = 2,858.5 mg/L * 1.55 = 4,430.7 mg/L [CV = 0.6, 95th Percentile, n = 4]

One year high sulfate value was 33 mg/L so no limit is needed, monitoring only

Chloride

Chronic WLA: $C_e = ((0.38 + 4062.5)230 – (4062.5 * 60.0))/ 0.38$

$C_e = 1{,}873{,}723.7$ mg/L

Acute WLA: $C_e = ((0.38 + 3.8)860 – (3.8 * 60.0))/ 0.38$

$C_e = 8860$ mg/L

LTA_c = 1,873,723.7 mg/L (0.527) = 957,940 mg/L [CV = 0.6, 99th Percentile, n = 4]

LTA_a = 8860 mg/L (0.321) = 2,844.1 mg/L [CV = 0.6, 99th Percentile]

Use most protective of LTA acute or chronic:

MDL = 2,844.1 mg/L * 3.11 = 8,845.0 mg/L [CV = 0.6, 99th Percentile]

AML = 2,844.1 mg/L * 1.55 = 4,408.3 mg/L [CV = 0.6, 95th Percentile, n = 4]

One year high Cl value=2,040 mg/l, so no limit is needed, monitor only

Zinc

Chronic WLA: $C_e = ((0.38 + 4062.5)193 – (20.0 * 4062.5))/ 0.38$

$C_e = 184{,}977.6$ ug/L

Acute WLA: $C_e = ((0.38 + 3.8)211 – (20.0 *3.8))/ 0.38$

$C_e = 2{,}121.0$ mg/L

LTA_c = 184,977.6mg/L (0.527) = 97,482 [CV = 0.6, 99th Percentile, n = 4]

LTA_a = 2121.0 mg/L (0.321) = 680.8 [CV = 0.6, 99th Percentile]

Use most protective of LTA acute or chronic:

MDL = 680.8 ug/L * 3.11 = 2,117.4 ug/L [CV = 0.6, 99th Percentile]

AML = 680.8 ug/L * 1.55 = 1,060 ug/L [CV = 0.6, 95th Percentile, n = 4]

One year high = 506 ug/L, so no limit needed, monitor only

Lead

Chronic WLA: $C_e = ((4062.5 + 0.38)5 – (3.0 * 4062.5))/ 0.38$

$C_e = 21387.9$ ug/L

Acute WLA: $C_e = ((0.38 + 3.8)136 – (3.0 * 3.8))/ 0.38$

$C_e = 1434.4$ ug/L

LTA_c = 21387.9 ug/L (0.527) = 11271.4 ug/L [CV = 0.6, 99th Percentile, n = 4]

LTA_a = 1434.4 ug/L (0.321) = 460.4 ug/L [CV = 0.6, 99th Percentile]

Use most protective of LTA acute or chronic:

MDL = 460.4 ug/L * 3.11 = 1,431.9 ug/L [CV = 0.6, 99th Percentile]

AML = 460.4 ug/L * 1.55 = 713.7 ug/L [CV = 0.6, 95th Percentile, n = 4]

One year high =806 ug/L, so limits will be as calculated

Copper

Chronic WLA: $C_e = ((0.38 + 4062.5)13 – (3.0 * 4062.5))/ 0.38$

$C_e = 106920.5$ ug/L

Acute WLA: $C_e = ((0.38 + 3.8)26 – (3.0 * 3.8))/ 0.38$

$C_e = 256.0$ ug/L

LTA_c = 106920.5 ug/L (0.527) = 56346.8 [CV = 0.6, 99th Percentile, n = 4]

LTA_a = 256.0 ug/L (0.321) = 82.2 [CV = 0.6, 99th Percentile]

Use most protective of LTA acute or chronic:

MDL = 82.2ug/L * 3.11 = 255.5 ug/L [CV = 0.6, 99th Percentile]

AML = 82.2 ug/L * 1.55 = 127.4 ug/L [CV = 0.6, 95th Percentile, n = 4]

One year high=194 ug/L, so limit will be as calculated

Nickel

Chronic WLA: $C_e = ((0.38 + 4062.5)94 – (0.0 * 0.00))/ 0.38$

$C_e = 1005052$ ug/L

Acute WLA: $C_e = ((2.33 + 0.0)842 – (0.0 * 0.00))/ 0.38$

$C_e = 9262$ ug/L

LTA_c =1005052 mg/L (0.527) = 529662 [CV = 0.6, 99th Percentile, n = 4]

LTA_a = 9262 mg/L (0.321) = 2,973.1 ug/L [CV = 0.6, 99th Percentile]

Use most protective of LTA acute or chronic:

MDL = 2973.1 mg/L * 3.11 = 9246.3 ug/L [CV = 0.6, 99th Percentile]

AML = 2973.1 mg/L * 1.55 = 4608.3 ug/L [CV = 0.6, 95th Percentile, n = 4].

One year high = 26 ug/L, so no limit or monitoring is needed. Removed from permit.

Reviewer: Tim Stallman
Date: 8-2-2006
Unit Chief: Refaat Mefrakis

Monitoring and effluent limits contained within this document have been developed in accordance with EPA guidelines using the best available data and are believed to be consistent with Missouri's Water Quality Standards and Effluent Regulations. If additional water quality data or anecdotal information are available that may affect the recommended monitoring and effluent limits, please forward these data and information to the author.